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Soil Conservation

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ACTION IN APPALACHIA—Page 221
RURAL BEAUTY—Page 227 SOIL STEWARDSHIP—Pages 219, 226, 232, 237

SOIL CONSERVATION SERVICE • U. S. DEPARTMENT OF AGRICULTURE

MAY 196
VOL. XXX, NO. 1

Soil Conservation

Stewardship . . .

Amidst springtime's surge of new life is a fitting time to be reminded that economics is not the only—or even the basic—motivation for conservation.

Soil Stewardship Week, sponsored annually by NACD, is a way of formalizing our regard and reverence for life—for our own, that of our fellowmen, of future generations, and of all living things. Intelligent concern for life must include concern for the physical resources on which it depends.

Such concern is innate in most religions. It seemed appropriate, therefore, to ask a churchman on USDA's RAD Advisory Committee, Dr. Henry McCanna, to comment (p. 219) on the role of churches in conservation.

Appropriately, too, the President's recent Message on Natural Beauty (p. 227) lends a fresh emphasis to the stewardship concept.

Appalachia: Gene Buie has been SCS's staffman in councils fashioning a regional program tailored to Appalachia's specific economic problems. He is our source of information for a report (p. 221) on how this brave new effort to draw a bypassed region into the mainstream of American economic life will involve districts, watershed projects, SCS, and related agencies.

Cover: A small watershed under complete conservation treatment in Garrett Soil Conservation District, Maryland.

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The Church

in Resource Conservation and Development

By Dr. Henry A. McCanna
Member, National Advisory Committee on Rural Areas Development

THE churches of America have contributed significant leadership to all levels of the Rural Areas Development movement. This is a natural result of their concern for good community life and the enhancement of individual personality.

The various approaches of Rural Areas Development are a means of responsible ethical action. Never before have so many groups joined together for a single social objective. The well being of the 67 million people who live in town and country areas of less than 10,000 population is at stake. Having contributed to the total national wealth far out of proportion of their numbers, these people now have the opportunity to experience full development.

Basic Elements

Successful rural area development depends on two important factors that churches can help provide: (1) The programs must be based on local initiative, and (2) the people who need help the most must find an articulate voice.

It is in these matters that dedicated laymen and local pastors can be most helpful. They, more than any other local group, can aid in stimulating local initiative, and they can seek the dispossessed and help them become articulate.

In Custer County, Nebr., a leading church layman is the focal point for local resource development, and the record will show that in nearly every State and local RAD committee such sensitive and effective churchmen provide key leadership.

Usually it is the laymen who are the leaders, but pastors also get involved. A pastor in Mayville, Mich., stimulated a concern for the hungry

Dr. McCanna is Director, Commission on the Church in Town and Country, of the National Council of the Churches of Christ in the U.S.A., New York City.

people of the world that has become statewide in its scope.

The need for leadership in area development to provide new jobs in Braxton and Webster counties, W. Va., caused a local pastor to help organize the Braxton County Development Corporation Committee and to serve as its president.

In Jackson, Ohio, one of the finest examples of manpower training and development was spearheaded by a dedicated minister.

Both the lay and professional leaders of the Arizona Migrant Ministry and the Mississippi Delta Ministry are enlisting large numbers of urban as well as rural people into programs that will enable them to obtain equal economic opportunity.

Economic development, and its consequence, social development, can occur only if resources are adequate.

Resources and Religion

The relationship between the conservation of natural resources and religious development is as old as time and as new as tomorrow. The Bible records that the first commandment given to man was to "replenish (conserve) the earth" (Gen. 1:28).

Among the reasons for the settlement of America by our forefathers were the basic need for a new freedom of religion and a desire for land ownership. And in the development of the United States, opening up of new lands commonly was accompanied by extension of missionary activity.

The institutions of religion, and particularly the local congregation, have always thrived or waned with the availability of soil and water resources. The conservation of these basic resources has been encouraged by the stewardship teachings of religion, and the strengthening of the land has resulted in a corresponding extension of religion. It is not accidental that at the center of every flourishing agricultural area is a cluster of religious institutions.

Rural Observances

With the increase of urban life in the United States, the churches have emphasized more and more the importance of resource development. There have been ever-increasing observances of Rural Life Sunday, Soil Stewardship Week, Harvest Festivals, Freedom From Hunger Week, emphasis on conservation in Sunday Schools and Vacation Church Schools, training courses on the relation of religion and conservation, and outdoor services in State and National parks and recreational centers. Nearly every denominational publishing house includes the concepts of responsible stewardship of natural resources in its literature and especially in worship bulletins and aids.

For more than a decade the Soil Stewardship booklet of the National Association of Soil and Water Conservation Districts has met an ever-expanding demand. In 1964, more than 75,000 of the booklets and 6 million bulletin inserts were distributed in local communities and churches. These materials are prepared by the Association in cooperation with a Soil Stewardship Advisory Committee composed of the national rural church leaders of the major faiths in America.

Growing Needs

The growing interest of churches in rural observances is a response to a new dimension of change in modern life. In one sense, it might be said that the only constant factor in our society is change. And as changes occur man becomes aware of new and growing needs.

The relatively simple needs of the past for food, shelter, rest, and love have been expanded to an extent heretofore only imagined in the wildest of dreams. Industrialization and automation enable man to live in surroundings which would have been the envy of yesterday's potentates.

The new leisure promises to fulfill the ancient hope for a Nation of philosophers and artists. Without continuing conservation, however, man's unrestrained appetites can frustrate the fulfillment of his future. As we become aware of growing needs, we must also demonstrate a corresponding increase of responsible conservation. Otherwise, instead of these changes contributing to a healthy society, they may bring forth a diseased giantism that topples of its own weight. ♦

Through The Centuries

FOR centuries, men of many religious persuasions have intoned: "The earth is the Lord's, and the fullness thereof. . . ."

For centuries, many of these same men defied their words and denied them by despoiling God's earth.

To allow the creative potential of God's earth to be dissipated by neglect, by inefficiency, by greed—this is truly to take God's name in vain, if we believe that the earth is His.

In early days, Jewish farmers believed that the earth had as much right to a Sabbath as man did. They instituted the Seventh Year.

Their descendants all over the world have pioneered in techniques of soil conservation and land use. Not only in reborn Israel, but in Europe, Asia, Africa, and the Americas, 20th century believers in the Mosaic covenant are practicing and teaching day-to-day, season-by-season ways of conserving and refreshing the good earth through which God feeds His children.—RABBI EUGENE J. LIPMAN, *Washington, D. C., Member, National Advisory Committee on Farm Labor.* ♦

Action in Appalachia

Resource development to help build new economy for bypassed region

SOIL conservation, watershed protection, water resource and recreation development, and other activities of the Soil Conservation Service will figure in the program resulting from the recently approved Appalachian Regional Development Act.

The act does not create any new responsibilities for the SCS but the coordinated attack on the resource and economic problems of the region will intensify the work of the Soil Conservation Service and of soil conservation districts in the area.

Congress approved the Appalachian Regional Development Act because of the realization that the rapidly expanding national economy in the past 2 decades has bypassed an important segment of the United States.

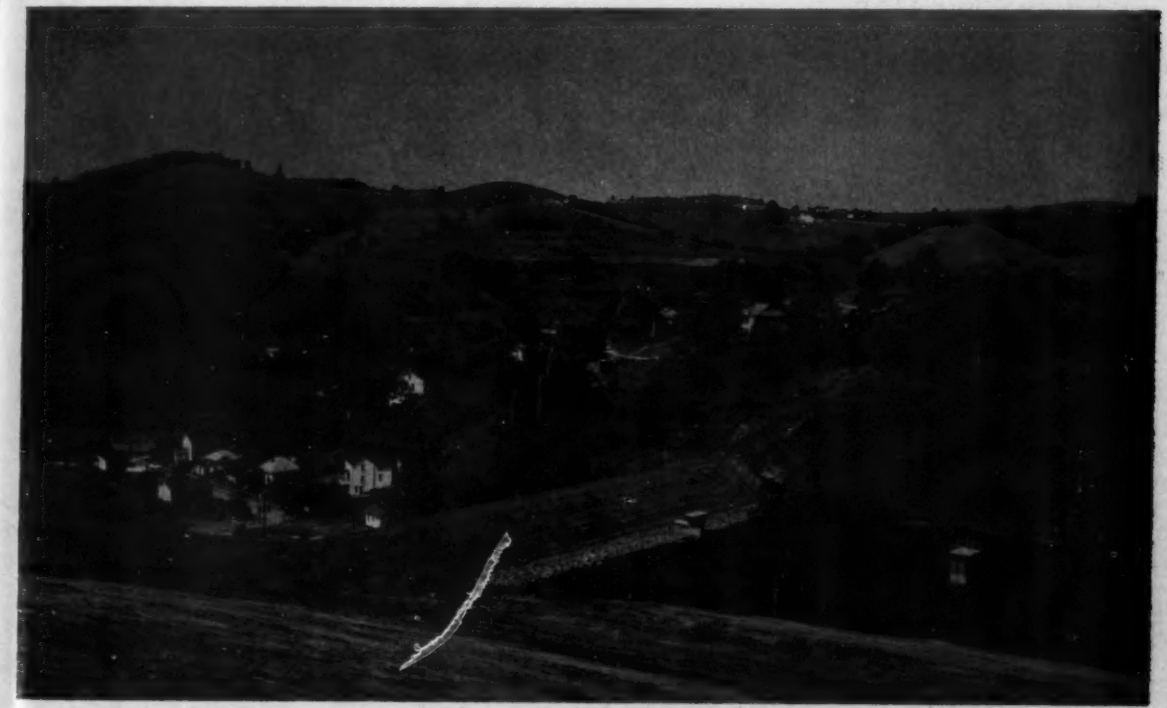
Appalachia is a mountainous region. Lack of accessibility, the shortage of skilled labor, and the nature of its natural resources have favored the development of other regions better able to compete in the national market.

Appalachia has been publicized during the past year as a region apart, a land lacking in social and economic opportunities. But Appalachia has many natural assets that can be developed.

Appalachia is in truth a scenic wonderland—a land of forest-covered mountains, ample rainfall, and numerous streams. Its people are descended from rugged frontier stock and have been independent and self-reliant throughout the history of the Nation.

Appalachia embraces 360 counties in 11 States, namely: Alabama, Georgia, Kentucky, Maryland, North Carolina, Ohio, Pennsylvania, South Carolina, Tennessee, Virginia, and West Virginia. The act further provides that 13 counties in New York may be included.

More than 8 percent of the Nation's population lives in this region. But, sad to say, it's 15.3 million people earn less money,



Appalachia can use more than 800 watershed projects. Many will include multiple purpose dams like this one that provides protection and water supply.

have a higher percent of unemployed and a lower level of education, and they enjoy fewer public services than the people who live in the rest of the United States.

New Highways

The Appalachian Regional Development Program, authorized by the act and involving cooperative effort between Federal, State, and local levels of government, will help to overcome some of these handicaps.

One of the first and most important features of the program is to construct an Appalachian development highway system of not more than 2,350 miles of new highways and 1,000 miles of local access roads. This system, in conjunction with the Interstate system and other Federal-aid highways, will provide the access necessary to encourage and facilitate the development of the land and water resources of the region.

Eighty watershed projects have already been approved for installation under the Watershed Protection and Flood Prevention Act. Construction of the planned structural measures has been completed in 15 of these projects. It is estimated that more than 800 similar projects could be developed in Appalachia. These would provide numerous opportunities for the development of planned water-based recreation facilities readily accessible to potential users both within and outside the region.

Water Supplies

In addition to recreation developments, the watershed projects would offer opportunities for providing water supplies for irrigation, municipal, industrial, fish and wildlife, and water quality control uses.

Flood protection provided by the projects would enable more intensive use to be made of the flood plains for agricultural production and for capital investments.

Small industries could be supported to process agricultural products, utilize locally available natural resources, and provide employment for the local labor force. Activities of this type would provide for community development on a stable economic base which would be self-sustaining.

Watershed projects will relieve Appalachian valleys of recurrent flood damages.

A survey of the water resources will be made and correlated with other similar studies that have covered parts of the region. It will provide the basis for planning the coordinated development of the region's total water resources. Such a plan of development can assure that the available water will be put to uses which will contribute most to the region's economy.

Land Use Adjustments

Conservation activities will be accelerated through the watershed protection programs, the provision for timber development organizations, the restoration of areas damaged by poor surface mining practices, and the establishment of land stabilization and erosion control measures. These efforts will provide opportunities to plan coordinated development and use of

Fish in the lake and alfalfa on the leveled strip mine spoil are examples of the benefits of reclamation to be a part of the Appalachian program.

the resources of the area for economic improvement.

Only 30 percent of the land in Appalachia is suitable for sustained cultivation. More than 9 million acres of cropland and about the same amount of pastureland need conservation treatment. Land use conversions are needed on more than 4 million acres. The Appalachian Regional Development Program will provide increased incentives as well as means for carrying out an accelerated program of soil and water conservation, including provisions for long-term cost-sharing contracts for establishing approved measures.

The Appalachian Program will also provide facilities for vocational education to give people the training they need to obtain employment. It will provide for improved health and medical facilities and for improved housing. These are necessary services to assure a dependable labor force.

The Appalachian Regional Commission, formed under the provisions of the law, will provide a focal point for coordinating the various Federal, State, and local programs to assure the balance necessary for economic growth. Such action, combining the means made available through the Appalachian Act with other State and Federal programs, can change Appalachia from a region apart to a region which is a part of the Great Society. ♦

District Subscribes To Our Magazine

One item in the budget of the Northeast Soil and Water Conservation District of Louisiana is a subscription to *Soil Conservation* magazine for each of the five supervisors.

They consider the magazine a part of "keeping up" with the job, and as such reasonable business expense of the district. ♦

The honor camp buildings were constructed by the boys with materials mainly salvaged from demolition work in Grand Rapids' urban renewal project.

Conservation Therapy

Honor camp on abandoned farmland gives youths outdoor experience and citizenship training

By Donald D. Kline
Soil Conservationist, SCS, Grand Rapids, Mich.

YOUNG men convicted of first offenses against the law in Kent County, Mich., don't wait out their terms in idleness in a jail cell. They get out into the countryside and work at conservation projects assigned to them by the sheriff and his deputies.

"Our experiment is paying off," says Sheriff Arnold Pigorsh, originator of the minimum security project. "By careful screening we are able to keep 90 percent of the 17- to 21-year-olds out of the local jail and away from the influence of habitual criminals. At the same time we're putting soil and water resources to work."

Kent County owns 700 acres of abandoned farmland in Spencer Township. Three hundred and thirty acres were planted to red and white pine in the late 1930's. Otherwise the land had received little care or attention up until 1961 when Sheriff Pigorsh suddenly had an idea. "Why not use this land as a rehabilitation center for the young first offenders?"

The new jail, built in 1957, was already overcrowded. Sheriff Pigorsh knew of too many instances where "first timers" confined with habitual criminals had become poor risks as future citizens. He worked to get others interested in the idea of a Civilian Conservation Corps type camp to relieve his mounting

James Emery, SCS conservation aid (l.) and Sheriff Arnold Pigorsh examine Honor Camp conservation photos at the sheriff's office.

jail population and lessen first offender "repeats." With approval from the Board of Supervisors, the help of civic groups, churches, and professional groups was enlisted to secure building materials and equipment. Most of the construction was done by inmates selected for the camp.

In May 1962, before the dormitory had been completed, Deputy Eli Roberts visited the soil conservation district office. The deputy, and his father too, had been district cooperators in the Kent City area for many years. Deputy Roberts asked if the Soil Conservation Service staff could help him develop a forestry and wildlife plan for 80 acres to be used for the camp.

Soil Building Program

They could and they did. The Rubicon sand and Rousseau fine sand soils had proved to be well suited for pine plantations. Better management was the greatest need. A soil rebuilding program for a 5-acre vegetable and produce garden near the camp was provided in the conservation plan. A shallow well irrigation system was later found to be a "must" for their highly successful garden project.

The camp complex includes a large dormitory with kitchen and dining room, shops, a recreational building, and a chapel. Another dormitory is planned. One hundred first timers are expected to be housed by January 1, 1966.

A high school extension course is planned for those who are "drop outs." The kitchen training program has already fitted several men for hotel and restaurant jobs, and the industry is reaching out for all available "camp graduates" who have become trained food handlers. Continued conservation forestry training will be provided in the winter and in early spring.

What has been accomplished in the first 3 years? Considerable work has been done in thinning and in pruning the pines. Fire lanes have been cut. The large garden operation, requiring considerable labor, has thrived. Surplus produce has eased the county jail's kitchen budget much of the year. Even more important, the conservation experience "in the pines" has proved its worth in human betterment.

Regular Movies

In 1962, James Emery, SCS conservation aid at the Grand Rapids Work Unit, offered to show conservation movies to the men once a week. Planned originally for only a few weeks of Thursday night movies and discussions, these sessions have now become a regular event. Mr. Emery was asked to come to the camp once a week. Each Thursday evening, for the past year now, he has gone to the camp on his own time, equipped with a different movie on conservation and related subjects.

Sheriff Pigorsh says the response from the inmates has been "terrific." He has high praise for Mr. Emery's voluntary contribution to continuing education.

Kent County officials, Michigan's first to initiate an honor camp, have given the Sheriff fine support. Now, adjoining county officials are considering the idea of sending a few selected first offenders to the camp. Service clubs, churches, industries, and individuals have provided construction materials, equipment, and furnishings. Visitors from the interested groups eat food prepared by the camp cooks—the same as that given to the inmates.

The Rev. Leland A. Hoyer, Protestant chaplain, and Father Vince Kamarauskas, Catholic chaplain, are both pleased with the men's participation in the interdenominational chapel services.

"The Honor Camp has taught these young men to work," said Rev. Hoyer. "They now take pride in their work. They are better prepared for a useful life, and they have gained confidence they need to get along on the 'outside'." ♦

Soil Erosion

Wasteful land use started in the New World when the first English colonists settled in the Chesapeake country in 1607 and continued as settlers went ever westward. For many years no thought was given to conserving the soil except for a few early Americans like Jared Eliot, Samuel Deane, Thomas Randolph, Thomas Jefferson, and others, who wrote and preached about soil erosion. "Early American Conservationists" by Angus McDonald (USDA Misc. Pub. 449), tells about these conservationists.

Not a great deal was done until 1935 when the soil conservation work in most of the agencies in USDA and USDI was gathered together into one agency that later became known as the Soil Conservation Service with H. H. Bennett as chief. That was the first concentrated national effort to control soil and water erosion. ♦

Farmers Plant Trees to Beautify New Interstate Highway Route

By Elmer L. Worthington
Woodland Conservationist, SCS, Bismarck, N. Dak.

A NOVEL tree-planting program to beautify the view along new Interstate Highway 94 is booming in Burleigh County, N. Dak., and promises to spread to the rest of the State.

Most North Dakotans agree that more trees are needed. The Bismarck Chamber of Commerce, with the help of the local soil conservation district and the Soil Conservation Service, has taken unique steps to get them on the North Dakota landscape.

Bismarck is the State capital and the county seat. By sponsoring a "Beautify Burleigh" campaign, the Chamber of Commerce would set an example for people to see, Manager Art Leno reasoned.

Corridor of Trees

The idea was to encourage farmers and ranchers to plant windbreaks on their land near the route of the new highway and to get still more trees planted in the zone 3 miles on either side of the right-of-way.

The plantings could be any type the landowner wished to establish. Some would be field windbreaks and others wildlife plantings or simply additions to existing farmstead or feedlot windbreaks. Some would be plantings for recreational developments. A few are small blocks of evergreens for future Christmas trees. The Chamber of Commerce hoped to have the trees planted before the highway was completed.

Fortunately, the soils on both sides of the new highway are suitable for tree growth, except for three salty slough areas totaling about 6 miles in length.

At a dinner meeting 2 years ago, at which the "Beautify Burleigh" idea was explained, the 75 landowners attending pledged their wholehearted support.

A Good Start

As tree planting sites need to be prepared a year in advance, few plantings were made the first year. In the spring of 1964, however, the planting began in earnest. By the end of the year, 22 farmers and ranchers had planted 31,105 trees on their land, according to Cliff Wahl, local SCS conservationist.

If highway construction on this segment is completed on schedule, it will be open to traffic late in 1966. Two years still remain for adding to the tree plantings.

"If the tree planting activity continues at the present rate, it will have greatly exceeded the fondest dreams of the Bismarck Chamber of Commerce," Manager Leno says.

ABOVE.—Single row pattern field windbreak is one type adapted in Burleigh County. These were planted in 1959 at 40-rod intervals. BELOW.—A field windbreak of white willow planted in 1959 has reached a growth of 15 feet.

All of the plantings have been made by the tree planting machine and crew of the South Burleigh Soil Conservation District.

"Not only do the owners like the trees, but they have taken exceptionally good care of them, and some of the first trees planted 2 years ago are now 6 to 8 feet high," says Park Hoover of Moffit, chairman of the soil conservation district.

Soon after the "Beautify Burleigh" program started, many farmers and ranchers along other highways wanted to participate. Within a year, the entire county was included in the beautification venture. U.S. Highway 83, which runs north and south through the county, has many fine plantings bordering it. The State, county, and township roads also are blossoming with new plantings in the "line-of-sight" along them.

The "Beautify Burleigh" planting idea has spread to several other areas in North Dakota. In fact, such a program could be expanded to include the land adjacent to the entire Interstate Highway System in North Dakota. ♦

One of the first "Beautify Burleigh" tree plantings was made on Lloyd Salter's farm at Menoken. The owner is on the tractor with Paul Jahner and Vern Hoover operating the district's tree planting machine while Don Tracy, president of the Bismarck Chamber of Commerce, looks on.

Clubs and Schools Join Churches in Soil Stewardship

CIVIC clubs and schools, as well as churches and the soil conservation district, join in observing Soil Stewardship Week in Covington County, Ala.

The Andalusia Civitan Club and the Covington County Soil Conservation District jointly sponsor the event. Newspapers and radio statons in Andalusia and Opp cooperate in making the activities successful. As a result people throughout the county — farm and town folks alike—gain a better understanding of their responsibilities as stewards of the soil and the benefits of conservation.

The Rev. J. M. Fuqua, farmer, soil conservation district supervisor, and a full-time Baptist minister, is Soil Stewardship chairman.

Early every May the Andalusia Civitan Club holds a "kick off" meeting. Farmers, agricultural workers, and county and city officials are special guests. Rev. Fuqua and others make talks and distribute packets of material prepared by the National Association of Soil and Water Conservation Districts.

Rev. J. M. Fuqua.

Much of the success of the activity is credited to Rev. Fuqua's vigorous leadership. For more than 20 years he has been a community figure in the Andalusia, Opp, and Salem sections of the county. He has headed the local observance for 6 years and was State Soil Stewardship chairman in 1960.

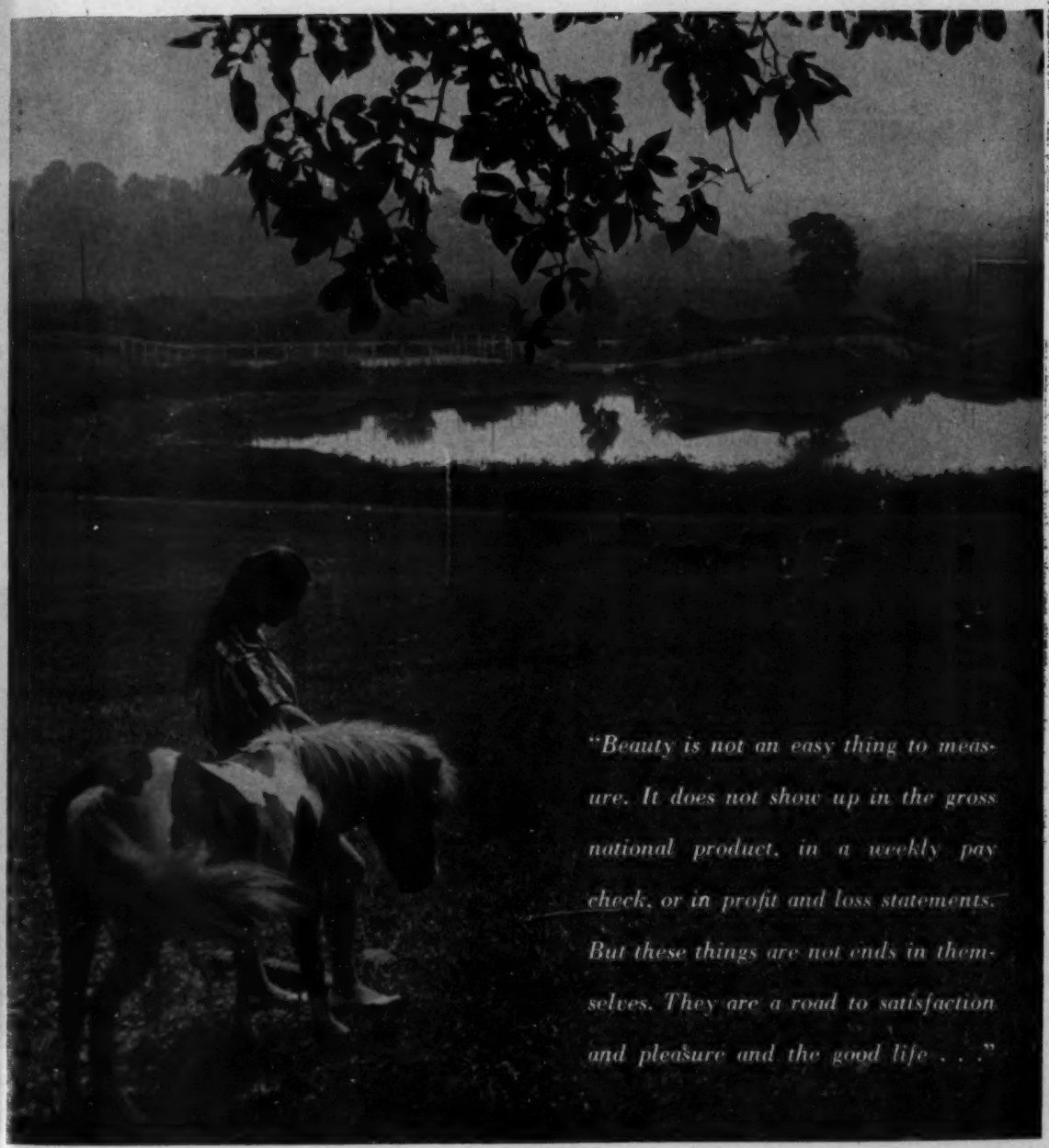
Rev. Fuqua operates a 450-acre farm south of Andalusia. He raises beef cattle and hogs, grows corn, peanuts, and pine trees, and has a year-round pasture program. He buys hogs and cattle and fattens them for the market.

Rev. Fuqua was born only a mile and a half from his present home. He remembers when there were red, eroded hills and gullies where now are green pastures, pine trees, and farm ponds.

Members of the West County Line Baptist Church near Opp, where he preaches, have fully paid for their attractive new sanctuary and Sunday School rooms. Good conservation practices and farm management have had a prominent part in the financial success of their church and community, according to T. R. Saunders, chairman of the church's board of deacons—CHARLES H. HARPER, *Area Conservationist, SCS, Ozark, Ala.*

A Heritage for Our Descendants

A Conservation Challenge From the White House Message on Natural Beauty


"Beauty is not an easy thing to measure. It does not show up in the gross national product, in a weekly pay check, or in profit and loss statements. But these things are not ends in themselves. They are a road to satisfaction and pleasure and the good life . . ."

"Association with beauty can enlarge man's imagination and revive his spirit . . ."

"What a citizen see[s] da[y] America . . ."

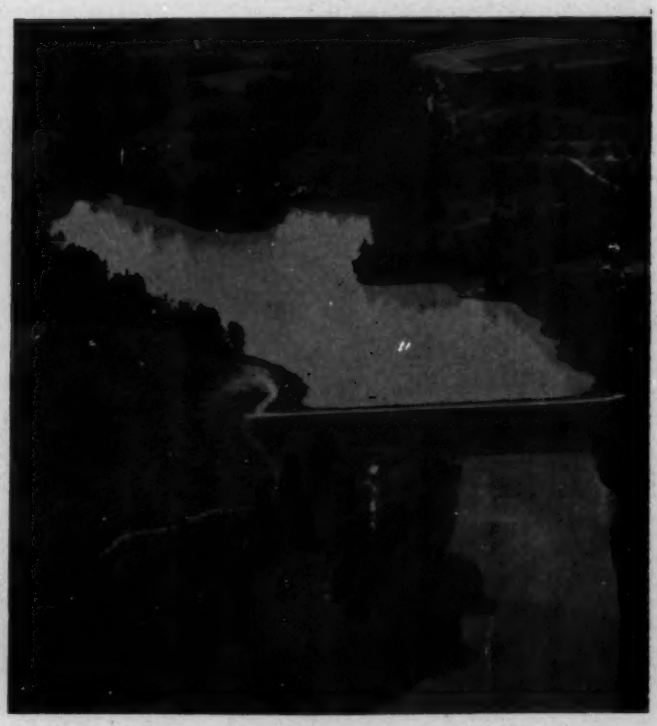
"By making our roads highways to the enjoyment of nature and beauty we can greatly enrich the life of nearly all our people in city and countryside alike . . ."

"Nothing was a greater source of wond[er] amo[ng] power and majesty of American rivers

citizen see day is his . . ."

of wond amazement than the an rivers

"Certainly no one would hazard a national definition of beauty. But we do know that nature is nearly always beautiful . . ."



"We will continue to conserve the water and power for tomorrow's needs with well-planned reservoirs . . ."

"The time has come to identify and preserve free-flowing stretches of our great scenic rivers . . ."

"A prime national goal must be an environment that is pleasing to the senses and healthy to live in . . ."

PHOTOGRAPHS

1. Farm in the Guyan Soil Conservation District, W. Va. (America the Beautiful).

2. Irrigated valley in Wyoming. (WYO-664).

3. Stripcropping in Spoon Creek Watershed, Coshocton Soil Conservation District, Ohio. (78,980).

4. Walking in woods, Lower West Red River Soil Conservation District, La. (La 62,628).

5. Highway in northern Virginia (N-47678).

6. Farms along the Susquehanna River, Bradford County Soil Conservation District, Pa. (FS 453897).

7. Floodwater-Retarding Structure No. 10, Johnson Creek watershed, Tenn. (Tenn-D10-31).

8. Waterfalls above floodwater-retarding dam in Oliverian Brook watershed, N. H. (N.H. 169)

9. Conservation farm, Frederick Soil Conservation District, Md. (Md-30,211).

Birds and Beauty . . .

Russian-Olive is Prize Landscape Plant in West

By Olan W. Dillon, Jr.,
Biologist, SCS Regional Technical Service Center, Ft. Worth, Tex.

RUSSIAN-OLIVE is coming to town and is bringing the birds with it.

The conservation uses of this plant long have been known in rural areas for farmstead and field windbreaks, snow traps, gully and streambank plantings, hedgerows, and living fences.

Urban dwellers now are using it for hedges, screens, waste areas, odd corners, and to attract birds. Russian-olive trees and a bird feeder are an effective combination to attract both seed- and fruit-eating birds.

Russian-olive is a native of Europe and Western Asia. In the United States it is adapted to the Western and Great Plains States. Few other trees have such wide adaptation to soil and climate. Its silvery foliage and graceful irregular shape make it an attractive plant for many kinds of landscape plantings.

The plant is a spreading, shrubby tree that grows up to 20 feet tall under normal rainfall conditions. It grows larger when it has extra water and fertility. When allowed to grow without pruning its lower branches spread to 20 feet in diameter. When planted with close spacing and proper pruning, Russian-olive makes a dense attractive hedge. It also makes a fine shade tree up to 40 feet high when all but one of the lower stems is removed and it is kept free of branches close to the ground.

Plantings that are well cared for and watered produce seeds in 3 to 5 years. Highly fragrant small yellow flowers appear in early summer. Whitish or silvery fruits mature in the early fall. There are several pink- or brown-fruited varieties that produce larger fruits than the silvery variety. Birds, however, prefer the white fruits over the other kinds.

Russian-olive thrives from sea level to at least 8,000 feet elevation and withstands temperatures ranging from 50° F. below zero to 115° above. The salt tolerance of the plant is surpassed only by saltcedar (*Tamarix*) and a few other plants. It survives best in alkaline soils. It does not thrive in acid soils although an occasional plant may survive in such soils in yards in the Northeastern United States.

Forty-three birds, listed on the next page, are known to eat Russian-olive fruit.

The author has 10 Russian-olive trees in his yard in the City of Lakewood, Colo., that have provided some interesting birding experiences.

Last winter, seven Wilson's warblers ate insects on the trees until cold weather drove them south.

House finches have used the trees yearlong and fed on the fruits all winter, as did house sparrows.

Left to take its normal form, Russian-olive makes a spreading shrub that provides birds excellent escape cover.

Russian-olive makes a fine shade tree when the lower branches and sprouts are pruned until the tree is formed.

Birds That Eat Russian-Olive

Mallard	Townsend's solitaire
Blue grouse	Cedar waxwing
Sharptailed grouse	Phainopepla
Gray partridge	Starling
Bobwhite	Brewer's blackbird
Scaled quail	Common grackle
California quail	Cardinal
Gambel's quail	Evening grosbeak
Ringnecked pheasant	Cassin's finch
Chukar	House finch
Wild turkey	Pine siskin
Mourning dove	House sparrow
Roadrunner	Lesser goldfinch
Redshafted flicker	Greentailed towhee
Blackbilled magpie	Rufoussided towhee
Common crow	Slatecolored junco
Mockingbird	Oregon junco
Catbird	Whitecrowned sparrow
Brown thrasher	Song sparrow
Sage thrasher	
Robin	
Eastern bluebird	
Mountain bluebird	
Bohemian waxwing	

Several robins spent the winter with us, feeding on the Russian-olive fruits until the ground thawed and they could go back to catching earthworms.

The most interesting winter birds feeding daily on the seeds were evening grosbeaks and Bohemian waxwings. A feeder next to the trees offered sunflower and millet seeds. The sunflower seed is especially attractive to the grosbeaks.

Russian-olive produces abundant fruit that remains on the tree in winter until consumed by birds.

Sometimes as many as 200 Bohemian waxwings would be in the trees at one time. When most of the Russian-olive seeds had been eaten, we started sticking raisins on the spines of the trees to keep the birds coming in.

Late winter brought a wave of Cassin's finches. They would be in the trees and at the feeder shortly after daylight and would spend most of the day close to the trees. As the spring migration started the Cassin's finches were joined by whitecrowned sparrows. They stayed until they moved into the high country to nest.

Just after the Cassin's finches and whitecrowns left, a redwing blackbird set up a courting territory on the highest Russian-olive tree. A lot of fighting between males took place, but when the females moved in they all moved down the hill to nest in the cattail marsh.

A pair of Bullock's orioles nested in a cottonwood tree close-by. When the young were fledged they used the Russian-olives as a headquarters area and left it only when the sour cherries were ripe.

Redshafted flickers fed regularly on insects in the bark of the trees during summer. We also had house finches and house sparrows all summer and a pair of doves raised two young in the denser part of the trees.

In early fall the Wilson's warblers were back on their way south. In addition, we have seen a McGillveries warbler, several Lincoln sparrows, and lesser goldfinches.

Russian-olive has come to town and some of us city dwellers are enjoying it with the bonus of birdlife that it attracts.

Additional information on Russian-olive can be obtained from your Soil Conservation Service technician or from USDA Leaflet No. 517, "Russian-Olive for Wildlife and Other Conservation Uses." ♦

Minister Builds Farm and Church

A MINISTER who is also a practicing conservationist has rebuilt a farm and a church for a Mississippi community.

Rev. J. A. McRaney, pastor of the Monerey Methodist Church near Florence, in 5 years converted about 500 acres of rundown land into a garden spot, returning most of the profit to the church.

As a cooperator with the Rankin County Soil Conservation District, he established 212 acres of improved pasture, built two farm ponds, and healed gullies by relocating roads and vegetating the ditches.

As a result of good woodland management, he now has about 300,000 feet of salable timber.

James L. Bishop, SCS soil conservationist, of Brandon, provided technical assistance.

When Rev. McRaney accepted the pastorate in 1959, the Monerey Church had only 30 members and conducted services every fourth Sunday. Now there are 102 members and regular weekly services, including a full program of youth activities.—W. C. NELMS, *Assistant State Conservationist, SCS, Jackson, Miss.* ♦

Benefits From a Ranch Conservation Plan

Some of the benefits of a ranch conservation plan, reported in "What Is a Ranch Conservation Plan?" (USDA PA 637), are: (1) Reduction of soil loss and better use of water resources, (2) increased grass production and improved quality of forage and feeds, (3) more calves weaned each year, with heavier calves at weaning age, (4) more dependable income, and (5) supplemental income from fee hunting, campgrounds, picnic areas, and other outdoor recreation enterprises. ♦

Delta District Cooperators Mechanize Sugarcane Planting

Leonard Julien demonstrates the placement of cane in the furrow by the mechanical planter.

TWO Louisiana soil conservation district cooperators, who recently gained recognition for inventing a mechanical sugarcane planter, not only believe in saving labor but also in conserving the soil of their 924-acre farm.

They are the Julien brothers, Leonard and Harold, of Modeste, La., who began rotating their sugarcane with other crops and doing simple drainage years ago when they farmed the land with their father Anthony Julien.

By 1952, the brothers had recognized the need for instituting organized conservation measures on their jointly operated farm. That year Leonard Julien signed a cooperative agreement with the Lower Delta Soil and Water Conservation District and developed a conservation plan with the aid of his brother and an SCS conservationist.

The plan called for a 3-year rotation of sugarcane with corn and soybeans, construction of a complete water-management system, renovation of pastures, seeding of cover to be used for green manure crop, and the use of all crop residue for soil protection and improvement.

Except for part of their drainage system, all these conservation measures and others have been carried out by the brothers. And so their district is proud of their conservation work as well as their revolutionary invention.

Said Andrew P. Gay, president of the American Sugarcane League and a member of the Board of Supervisors of the Julien brothers' conservation district, "I'm delighted to learn that what appears to be the first practical, satisfactory sugarcane planting machine is being developed by cooperators in our conservation district."

John B. Landry, SCS work unit conservationist with the district, praised the brothers upon their labor-saving invention.

The machine can plant 12 acres a day with a complement of 5 men, 2 tractors, and 3 small wagons, compared with 16 men, 4 tractors, and 8 wagons by present method.

Using three sets of tongs, the machine pulls the cane off a cart and drops it into open furrows. A tractor follows to cover the cane. In the dropping process, the cane is guided into proper position by a troughlike metal arrangement.

The brothers did some of the work on their tractor-drawn machine in their own well-equipped farm shop. But most of it was done in a Donaldsville machine shop. Estimated cost of building the machine is placed at $3,000. ♦

Leonard (l.) and Harold Julien, inventors of a mechanical sugarcane planter, are long-time soil conservation district cooperators.

District Buys and Restores Farm To Demonstrate Good Practices

By R. H. Boecking
Work Unit Conservationist, SCS, Scotts Bluff, Nebr.

FOR a generation the supervisors of the Scotts Bluff Soil and Water Conservation District, Nebr., have been saying that conservation is good business.

The district, located in America's "Valley of the Nile," includes 450,000 acres of fertile, highly productive irrigated land.

The board recognized the need for developing a conservation irrigation farm — a farm to demonstrate the latest soil and water saving practices and techniques to its 2,800 cooperators, a farm to set the pattern for the needed land treatment program in its 12 major watersheds.

The board bought the tract—80 acres of rough, eroded irrigated land—in 1956. It was sandy and sloping, typical of many farms of the area where wind erosion and poorly controlled runoff were major problems.

Poor Soil Condition

Examination by the SCS soil scientist found the soil compacted, low in organic matter, and deficient in zinc. The inefficient irrigation system wasted 40 percent or more of the water.

The conservation plan developed by the district supervisors and the conservationist called for contour

The 80-acre irrigated farm owned by the Scotts Bluff Soil and Water Conservation District lies in the immediate foreground. It is completely protected by conservations practices, including irrigation benches, terraces, grassed waterways, and shelterbelts (Photo courtesy of Scotts Bluff SWCD).

bench-leveling of 55 acres and seeding of 21 acres to grass and alfalfa.

It provided for reorganizing the irrigation system, including straightening a large company ditch, removing moisture-consuming cottonwoods along the canal, installing new weirs and turnout boxes, lining 1,500 feet of ditch with concrete, and laying 4,700 feet of irrigation pipe.

To protect low-lying benches from runoff, the plan called for a 1,500-foot diversion terrace emptying into a new grassed waterway.

A heavy stand of reed canarygrass mixed with switchgrass, brome, western wheatgrass, and tall fescue would take runoff and irrigation tailwater to a drop inlet grade-control structure and into a drain.

The conservation cropping system calls for alfalfa seeded with corn the first year, alfalfa the second year, potatoes the third, beans the fourth, and sugar beets the fifth year.

To correct the compacted soil condition, they had the fields chiseled to a depth of 44 inches. Under the district's supervision, the operator applies manure annually to beans and beet crops and adds phosphorous and nitrogen as tests show the need.

As a final conservation step, the board had 2 acres planted to trees and shrubs for wildlife.

Conservation Cropping

The board sizes up the conservation results this way: Complete elimination of erosion, water waste reduced to 10 percent, prevention of loss of soil nutrients due to excess irrigation, year-by-year improvements of soil condition, and reduction in labor needed.

More important — and the real reason for buying the farm—there has been a marked increase in the application of the conservation practices on cooperators' farms throughout the district.

Hundreds of school children, local farmers, businessmen, professional conservationists, and foreign agriculture specialists have visited the demonstration farm.

The Scotts Bluff board is proud of its achievement with the farm that a few years ago would have been appraised as a poor business venture and a community liability. They are proud enough to call it their "Farm of Tomorrow." ♦

Grasses Used in Cropland Shifts

Thirty varieties of native and tame grasses in the grass variety plot let landowners compare results before deciding what grasses to use.

AN experimental plot of 30 grass varieties has become a favorite gathering place for pasture-minded South Dakota farmers and ranchers.

The grass plantings are a joint project of Aurora County Soil Conservation District supervisors, the Cooperative Extension Service, and the Soil Conservation Service unit at Plankinton. Their aim is to help farmers and ranchers in the district see for themselves the behavior and productive potential of various grasses available for pasture use.

Most of the grasses are varieties of tame pasture grass that figure importantly in the more stable and prosperous agriculture of the State. Others are the always dependable native grasses that are the foundation of the livestock industry throughout the northern Great Plains.

Among the interested visitors at the demonstration plot are participants in the Agricultural Conservation Program and the Great Plains Conservation Program. These programs offer cost-share help in converting land unsuited or not needed for cropland to permanent grass or tree cover.

The plot is an outdoor display case of the grasses a landowner may choose in shifting cropland to other, and frequently more profitable, conservation uses.

After a stop at the grass variety plot, visitors often go to view field plantings of the grasses, such as bromegrass and sundangrass pastures on the Francis Bruns farm northwest of Plankinton. Mr. Bruns developed the bromegrass pasture 8 years ago.

The plot has been an important factor in the steady expansion of tame pasture acreage in the district.—MAURICE E. AHERN, *Work Unit Conservationist, Huron, S. Dak.* ♦

Conservation Plan Converts Cropland to Grass

WITH the exception of some additional acreage which he wants to plant to grass, Alvin Spitzer has completed, within 4 years, all the steps of a conservation plan covering his 1,097-acre livestock farm in the Kidder County Soil Conservation District in south-central North Dakota.

In 1960 Mr. Spitzer made the decision to reduce his feed grain acreage, to convert most of his cropland to grass, and to increase his cow herd to 150 head. The change would leave only 120 acres of cropland for production of feed, but he expected income from the herd to offset the cropland reduction and reduced expenses to leave an increase in net return.

Mr. Spitzer based his plans on information provided by the Soil Conservation Service. He entered into a contract under the Great Plains Conservation Program, and also used cost-sharing available from the Agricultural Conservation Program.

The conservation plan included provision for more water in the right places for proper use of his grass resources. Two springs were developed, and three stock-water dugouts were constructed. Five miles of single-row tree windbreaks and a farmstead windbreak were installed. Fencing was erected to protect grass seedings and manage grazing. The cultivated land was stripcropped.

Mr. Spitzer is sure that when another 70 acres is planted to grass as planned, he can soon increase his cowherd. When the grain crop justifies, he will feed out a part of his calf crop, adjusting the number of animals each year to the condition of the grass.

His installed farm plan won for him the 1964 Kidder County Achievement Award as an outstanding conservation farmer. More importantly, it brought him a more stable income and the satisfaction of knowing that erosion is under control on his land. He also has more time now to devote to problems of management, an important item these days in the life of a successful farmer.—LARRY VAN BERKOM, *Work Unit Conservationist, SCS, Steele, N. Dak.* ♦

Alvin Spitzer checks his cattle grazing on fall pasture on land converted from cropland.

One of the stock-water dugouts constructed in native pasture on the Spitzer farm.

Natural Resources

Fundamentally, natural resources are as important to the Nation's survival and welfare as they ever were. Land and its products, water, mineral fuels, and the nonfuel minerals still are the indispensable physical stuff that provides the material basis of modern civilization. Indeed, in those uses that serve recreation and the enjoyment of beauty the contribution of land and water are far more than material. — HANS H. LANDSBERG, *in "Natural Resources for U.S. Growth."* ♦

Eldred Sasseen

Oklahoma

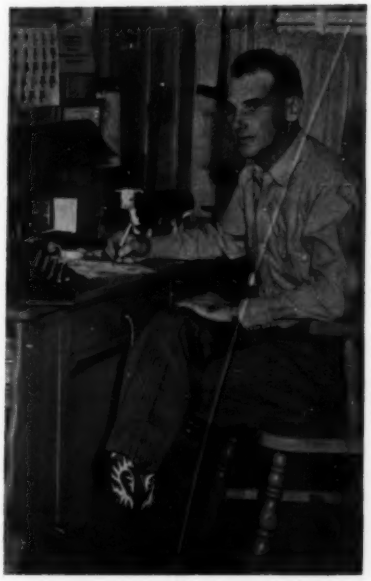
Busy Conservation Leader

SERVICE to his fellow men through his church and his soil conservation district take top priority among the many activities of Eldred Sasseen, chairman of the Washita County Soil and Water Conservation District, Oklahoma.

He gives first place to his work as minister to rural congregations of the Church of Christ.

Second comes the soil conservation district which was the State's 1964 Goodyear award winner. This honor climaxed 11 years of leadership by a strong board of supervisors in a wide-ranging program.

In third place Sasseen would put a host of assignments on committees and councils on community, county, area, and State levels—in agriculture and in other areas of public interest. In 1962 he was president of the Washita County Farm Bureau.



On His Own Land

Then comes his service as a rancher—service through the conservation of the portion of the Nation's natural resources that make up his 1,360-acre ranch.

In 1948 he became a cooperator with the Upper Washita Soil and Water Conservation District, which included the area now in the Washita County District.

He was a young farmer-rancher with some good cattle, some good grass, a little good farmland, and a great deal of marginal cropland and depleted rangeland.

Cultivated fields shrank as he planted range grasses. Range condition improved as he built a management program. Then Sasseen enlarged and improved his herd and extended his holdings.

Following his district conservation plan, and later his Great Plains conservation plan, he was on his way toward building his present ranch enterprise with its basic herd of 142 registered Hereford cattle. Only 40 acres are left in cultivation, and 498 acres have been retired to grass.

Sasseen won the State soil and water conservation district speaking contest in 1950. When the Washita County part of the parent district became a new district in 1953 he was appointed supervisor, along with Frank G. Kliewer, a member of the Upper Washita Board and president of a bank at Cordell, the county seat. Augie B. Sewell, W. G. Nash, and Ed Bose were elected to the board at that time and are still serving.

Since its organization the district has had strong leadershp and wide support from town and rural people. It has conducted a challenging program and has attempted to meet the needs of its cooperators.

It has regularly maintained native grass drills, bermudagrass planters, and other equipment, as well as a supply of grass and legume seed and other planting stock not available on the local market. Sasseen has, for many years, given personal supervision to harvesting bermudagrass roots.

When suitable space was not available for the Soil Conservation Service office, he and the other district supervisors personally underwrote a loan for $12,000 to build modern quarters for the unit.

A Watershed Record

The district has made an enviable record in watershed activities. It was in this county that Cloud Creek, a subtributary to the Washita River, became the Nation's first completed watershed project. There, national leaders met to dedicate the upstream concept of watershed conservation in July 1948.

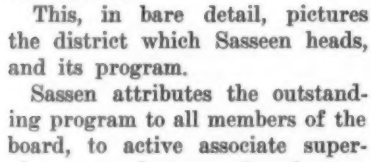
Now planning is complete on 8 of the 9 watersheds that lie wholly or partly within the district. Construction is complete on 3, nearly complete on another, and a fifth is under construction. Ninety-five flood detention reservoirs are planned, 46 are built, 17 are under construction, and easements have been cleared on another 27 sites.

A Frank G. Kliewer Memorial Dinner each spring honors outstanding district cooperators and their wives. Attendance runs around 400. It is sponsored by the bank and the district which he served long and faithfully. F. G.

Kliewer, Jr., now president of the bank, is an associate supervisor of the district.

This, in bare detail, pictures the district which Sasseen heads, and its program.

Sassen attributes the outstanding program to all members of the board, to active associate supervisors, to dozens of volunteer workers, and to support of farm and urban interests. He is right. But these are the men who have called on him for leadership each year, and who have responded to the challenge of full development of the district's land and water resources. ♦



World Prospects for Natural Resources. By Joseph L. Fisher and Neal Potter. *1964. Resources for the Future, Inc., Washington, D.C. (The Johns Hopkins Press, Baltimore). 73 pp.; paper. $1.50.*

This is a brief but useful appraisal of the adequacy of natural resources of the world to meet future demands in the face of the population explosion.

The availability of data for the United States made this part of the job relatively easy. The conclusions reached about agriculture correspond with those made by the Department of Agriculture; namely, that agricultural products in the United States will be adequate—even ample—for the rest of the century, providing the *rate* of discovery and use of agricultural technologies continues.

However, food output per capita in Latin America, Asia and Africa is no better than 25 years ago. Well fed areas like the United States and Western Europe consume 50 percent more calories per capita than do the poorest areas of the world. The difference means partial starvation for millions of people.

The authors conclude that the situation is not hopeless, even in face of the world population explosion. They cite evidence of sufficient natural resources to support present levels of living, provided much more effort is directed to education to improve skills in production technology as well as in government and world trade.—Gladwin E. Young, *Associate Administrator.*

New Publications

Soil and Water Conservation Needs — A National Inventory. By Conservation Needs Inventory Committee of the U.S. Department of Agriculture. *1965. USDA Misc. Pub. 971. 94 pp., illus. 60¢.*

This "interpretive" report provides a narrative discussion of the data first presented in "Basic Statistics of the National Inventory of Soil and Water Conservation Needs" (USDA Stat. Bul. 317) in 1962.

Chapters prepared by specialists of the Department's Conservation Needs Inventory Committee analyze and evaluate the findings in their respective areas of interest; namely, land capability and land use; conservation treatment needs of cropland, of pasture and range, of forest and woodland, of other land in agriculture, and of nonagricultural land; and watershed project needs.

Numerous tables of data, uniformly summarized by regions and for the 48 mainland States as well as the entire United States, make many significant comparisons that were not readily evident in the basic data published without comment or manipulation in "Basic Statistics." For example, regional subtotals are shown as percentages of the national total, and such crucial items as acreages needing treatment are expressed also as percentages of total area having the problem or in the use under consideration.

The major conclusions are represented graphically against a uniform regional map background. Photographs further help the reader visualize the subject matter of the inventory.

Petit Manuel de Conservation des Eaux et du Sol. By Albert B. Foster and Adrian C. Fox. *[undated] Centre Regional d'Editions Techniques, Paris. Techniques Americaines 75. 59 pp., illus.* This first translation of "Teaching Soil and Water Conservation" by two SCS information specialists was arranged through the Agency of International Development, Department of State. This popular youth handbook has had a combined distribution in the United States of more than 2 million in 4 different versions: "Teaching Soil and Water Conservation — A Classroom and Field Guide" (PA-341), "Soil and Water Conservation Activities for Boy Scouts" (PA-348), "Soil and Water Conservation Projects and Activities — A Guide for 4-H Club Leaders" (PA-377), and "Soil and Water Conservation Activities—A Guide for Leaders of Camp Fire Girls" (PA-391).

Conservation Highlights 1964. *1965. USDA, SCS. Unnumbered.* Digest of the progress report of the Soil Conservation Service in a 6-page foldout.

Watershed Program Evaluation, Honey Creek, Iowa. *1965. USDA ERS. 204. 81 pp.* An evaluation report on the actual benefits and conservation practices between 1955 and 1960 and the planned benefits and practices in this pilot watershed project with recommendations for changes in techniques and methods of evaluation.

The Race for Inner Space. *1964. U, S. Dept. of Int. 75 pp., illus. 55¢.* In "A Special Report to the Nation," prepared by the Division of Information, Office of the Secretary, the Department of the Interior, appraises and explains the activities of its several bureaus in the national effort to preserve quality and beauty in man's environment. The attractive booklet gives interesting insights into that Department's concern for "the preservation of balance and sanity and solitude on our own planet" as opposed to "the acquisition of real estate on other planets." ♦

From the Administrator:

Stewardship and Growth

EVERY American is a steward of the land whether he lives in the city or the country. Each has a vested interest in the land—each is dependent upon it and each is responsible for its care.

During Soil Stewardship Week, May 23-30, we are reminded that conservation of the land is a daily concern, every day of the year.

The theme of Soil Stewardship this year is "The Challenge of Growth." Never in our Nation's history has growth posed so great a challenge as it does today — growth of population, of great urban concentrations, of demands upon our natural resources, of infringements upon the beauty of the rural landscape.

One result of this dynamic growth is to shrink the broad and bountiful land, and to call for a more dedicated stewardship on the part of all Americans.

A beautiful countryside stems from a prosperous soil and clean-running streams. We have accomplished much to preserve the beauty and prosperity of our land and to restore it where the soil and waters have been mistreated or uncared for. We must not falter in our dedication and our resolve to carry on the job—to spirit it forward at a greater pace in keeping with the compelling requirements of the Nation.

The Soil Conservation Service and the soil and water conservation districts have a special responsibility for care of the land. What account can we make of our stewardship?

With the cooperation of an interested and far-sighted Congress, the soil and water conservation program has made significant advances. SCS conservationists have worked for more than a quarter of a century with local district supervisors and with farm and ranch cooperators to bring life, vitality, and beauty to much of the rural landscape.

These workers can point to land that now flowers where once it lay barren; to earth that holds firm where once it washed or blew away; to livability on land that once was unlivable. But not all the land. We have progressed; we have not yet arrived.

In resource conservation, each success is a benchmark. We can never be satisfied until all the land is used within its capability and assured that it will continue to be used wisely through enduring application of sound soil and water conservation practices.

This is a constant task, as constant as the need of living things for nourishment. The conservationist is concerned with keeping the land alive. He knows that the land too often has died for lack of care.

The ugly menace of erosion and depletion continues to scar much of our land, to rob us of our essential topsoil, to scourge our streams and reservoirs, to undermine the foundation of our existence. A recent interpretive report of the National Inventory of Soil and Water Conservation Needs lists soil erosion as the dominant conservation problem on private rural land in the United States.

Conservation problems, the report tells us, still are inadequately treated on 62 percent of the cropland, 73 percent of the non-Federal pasture and range, and 55 percent of non-Federal forest and woodland.

To these rural needs must be added the mounting problems of soil and water conservation in and around the Nation's rapidly expanding urban developments.

Every American, as a conservationist in his own right, would do well, I think, to look hard at the scarred earth where it has been stripped and left to erode, to examine the streams and lakes that are clogged with sediment, to note where the beauty of the countryside has been sacrificed. The Nation could not afford this to happen, but it did happen. It happened because stewardship of the land was wanting; because as keepers of the land the people failed in their service.

The margin of life is thin, indeed, under our feet. Our most productive soil is a shallow layer spread over an inhospitable landmass. When it is gone it cannot be replaced. When it has gone, as history tells us, nations and entire civilizations have declined and vanished.

We know what it takes to protect the life-giving soil and to keep the water running clean, as we build a greater America. We know that growth can be accomplished without destruction of the basic resources upon which our prosperity and future depend. This, indeed, is our stewardship responsibility.

The immediate need is to conserve. Prevention is our first responsibility. It is, by far, the least costly of the alternatives.

Prevention is the soul of the program of the Soil Conservation Service. And as we work to prevent destruction and loss of our most precious natural resources—which includes the beauty of the landscape—we build.

—D. A. WILLIAMS

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Pleasure and Profit From Ranch Resources

OWNER of the Soward ranch southwest of Creede, Colo., pert, 74-year-old Mrs. Emma McCrone, attributes the success of the operation to the way three principal resources of the ranch—grass, water, and wildlife—are used in combination.

Mrs. McCrone operates the ranch with the help of her daughter and son-in-law, J. Howard Lamb. As cooperators with the Rio Grande Soil Conservation District, they follow a conservation plan that combines the resources into a balanced operation. Besides building 15 cabins, 8 reservoirs and lakes (4 of which provide sport for anglers), and improving the irrigation facilities, they have improved sections of stream channel and practiced good range management.

The ranch is in high country, the headquarters at 9,000 feet elevation. Peaks, some more than 14,000 feet high, are on all sides. The Rio Grande River angles across on the north, and the Rio Grande National Forest joins the ranch on the south.

The area is steeped in the lore of the mining West. Creede itself — where in the pioneering days, according to a rhyme, "there was no night"—bears the stamp of its colorful mining history. Across Slumgullion Pass is Cannibal Plateau, a storied landmark. Fremont's party was trapped by snows in the mountains to the northeast in the days of exploration.

Summer cabins dot the hillside near a rearing pond for trout on the Soward ranch.

Revenue of the ranch is from a a variety of sources. The grazing is leased by the animal-unit-month from June through September. An 82-acre mountain meadow produces hay for market, and 200 acre-feet of irrigation water are sold to a valley farmer.

The cabins are rented to vacationers through the summer and to hunters in the early fall. A group from Texas leases a 540-acre pasture for recreation use in the summer.

To Mrs. McCrone the ranch is both home and a going business that provide both pleasure and profit from wise use of natural resources — WILLIS HAMMOND, RICHARD PORTER, AND R. D. ANDERSON, *Soil Conservationist and Work Unit Conservationst, Monte Vista, and State Soil Conservationist, SCS, Denver, Colo.,* ♦